AMENDMENTS TO THE CLAIMS

1. (original) An optically readable position coding pattern being provided on a medium, the optically readable position coding pattern comprising:

a plurality of first raster lines being provided parallel to one another;

a plurality of second raster lines being provided parallel to one another, the second raster lines intersecting the first raster lines at intersection points;

a plurality of marks being placed on either one of the first raster lines or the second raster lines at a predetermined distance from the intersection points,

wherein a first combination of the plurality of marks represents a binary code, the binary code being utilized for the determination of a position on the medium.

2. (original) The optically readable position coding pattern according to claim 1, wherein the plurality of first raster lines is perpendicular to the plurality of second raster lines.

3. (original) The optically readable position coding pattern according to claim 1, wherein the first raster lines intersect the second raster lines at an angle.

4. (original) The optically readable position coding pattern according to claim 1, wherein a second combination of marks, which is utilized for determining a second position, contains a portion of the marks from the first combination of marks.

5. (new) A product, comprising:

a surface; and

a code on said surface for determination of at least one position in a first direction,

wherein said code for position-coding in said first direction comprises at least one first main number series, which has the property that the place in the first main number series of each number sequence of a first predetermined length is unambiguously determined, said position being determinable based on at least one such number sequence of the first predetermined length, and

wherein the orientation of said code is discriminable from the first main number series, but only for number sequences of a second predetermined length that exceeds the first predetermined length.

6. (new) The product as set forth in claim 5, wherein said orientation is discriminable from the occurrence of nonallowed number combinations in said number sequences of the second predetermined length.

7. (new) The product as set forth in claim 5, wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed form in the first main number sequence.

8. (new) The product as set forth in claim 7, wherein said code is represented by a set of symbols which each code one number in the first main number series, and wherein said set comprises two unique symbols that are assigned the same number and which are indistinguishable on a rotation of 180° of one to the other.

9. (new) The product as set forth in claim 5, wherein the first main number sequence is binary, and wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed and inverted form in the first main number sequence.

10. (new) The product as set forth in claim 9, wherein said code is represented by a set of symbols which each code one binary number in the first main number series, and wherein said set comprises two unique symbols which are indistinguishable on a rotation of 180° of one to the other, one of said symbols being assigned the inverse binary number of the other symbol.

11. (new) The product as set forth in claim 5, wherein the place in the first main number series of each number sequence of the second predetermined length is unambiguously determined.

12. (new) The product as set forth in claim 5, wherein the first predetermined length is six numbers, and the second predetermined length is eight numbers.

13. (new) The product as set forth in claim 5, wherein said code comprises a plurality of parallel first main number series, and wherein adjacent first main number series are relatively shifted by a predetermined displacement, said position in the first direction being determinable based on a predetermined number of such displacements.

14. (new) The product as set forth in claim 5, wherein said first main number series is cyclic.

15. (new) The product as set forth in claim 5, wherein said code comprises at least one second main number series which corresponds to the first main number series with respect to its properties for position determination and orientation discrimination, the first and second main number series being arranged on the surface such that a rotation of the code by 90°, 180° and 270° is discriminable

from at least one of the first and second main number series.

16. (new) The product as set forth in claim 15, wherein a rotation of the code by 90° is discriminable from the first main number series only, and a rotation of the code by 270° is discriminable from the second main number series only.

17. (new) The product as set forth in claim 15, wherein a rotation of the code by 180° is separately discriminable from either of the first and second main number series.

18. (new) The product as set forth in claim 15, wherein at least one position in a second direction is determinable based on the second main number series.

19. (new) The product as set forth in claim 18, wherein the first and second directions are mutually orthogonal.

20. (new) The product as set forth in claim 15, wherein said code comprises a plurality of parallel first main number series and a plurality of parallel second main number series, said first and second main number series being arranged mutually orthogonal.

21. (new) The product as set forth in claim 15, wherein said first

and second main number series are identical.

22. (new) The product as set forth in claim 15, wherein said number sequence of the second predetermined length on the surface maps on a corresponding number sequence of the second main number series upon a rotation of said code by 90° or 270°.

23. (new) The product as set forth in claim 5, wherein said code comprises at least one second main number series for position-coding in a second direction.

24. (new) The product as set forth in claim 23, wherein said code comprises a two-dimensional array of graphical symbols that each represents one of at least four different values, and wherein the value of each symbol is translatable to at least one first number of said at least one first main number series and at least one second number of said at least one second main number series.

25. (new) A method for providing a code on a surface, to code at least one position in a first direction on the surface, said method comprising:

using at least one first main number series, which has the property that the place in the first main number series of each number sequence of a first predetermined length is unambiguously

determined and which also discriminates the orientation of the code, but only for number sequences of a second predetermined length that exceeds the first predetermined length;

determining at least one number sequence of the first predetermined length that codes said at least one position; and

applying to the surface at least one number sequence of the second predetermined length that includes the thus-determined number sequence(s) of the first predetermined length.

26. (new) The method as set forth in claim 25, wherein said orientation is discriminable from the occurrence of non-allowed number combinations in said number sequences of the second predetermined length.

27. (new) The method as set forth in claim 25, wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed form in the first main number sequence.

28. (new) The method as set forth in claim 27, further comprising: representing said at least one number sequence of the second predetermined length by a set of symbols which each code one number in said first main number series, wherein said set comprises two unique symbols that are assigned the same number and which are

indistinguishable on a rotation of 180° of one to the other.

29. (new) The method as set forth in claim 25, wherein the first main number sequence is binary, and wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed and inverted form in the first main number sequence.

30. (new) The method product as set forth in claim 29, further comprising: representing said at least one number sequence of the second predetermined length by a set of symbols which each code one binary number in the first main number series, wherein said set comprises two unique symbols which are indistinguishable on a rotation of 180° of one to the other, one of said symbols being assigned the inverse binary number of the other symbol.

31. (new) The method as set forth in claim 25, wherein the place in the first main number series of each number sequence of the second predetermined length is unambiguously determined.

32. (new) The method as set forth in claim 25, wherein the first predetermined length is six numbers, and the second predetermined length is eight numbers.

33. (new) The method as set forth in claim 25, further comprising: determining a plurality of parallel number sequences of the first predetermined length, wherein adjacent number sequences have a predetermined difference between their places in the first main number series, a predetermined number of such differences coding said position in the first direction; and applying to the surface said plurality of parallel number sequences of the first predetermined length, wherein at least one such number sequence is applied as included in a number sequence of the second predetermined length.

34. (new) The method as set forth in claim 25, wherein said first main number series is cyclic.

35. (new) The method as set forth in claim 25, further comprising: using at least one second main number series which corresponds to the first main number series with respect to its properties for position determination and orientation discrimination; and applying subsets of the first and second main number series to the surface such that a rotation of the code by 90°, 180° and 270° is discriminable from at least one of said subsets.

36. (new) The method as set forth in claim 35, wherein a rotation of the code by 90° is discriminable from a subset of the first main

number series only, and a rotation of the code by 270° is discriminable from a subset of the second main number series only.

37. (new) The method as set forth in claim 35, wherein a rotation of the code by 180° is separately discriminable from a subset of either the first or the second main number series.

38. (new) The method as set forth in claim 35, wherein at least one position in a second direction is determinable based on the second main number series.

39. (new) The method as set forth in claim 38, wherein the first and second directions are mutually orthogonal.

40. (new) The method as set forth in claim 35, further comprising: applying a plurality of parallel first main number series and a plurality of parallel second main number series to the surface in a mutually orthogonal relationship.

41. (new) The method as set forth in claim 35, wherein said first and second main number series are identical.

42. (new) The method as set forth in claim 35, further comprising: applying said number sequence of the second predetermined length on

the surface such that is maps on a corresponding number sequence of the second main number series upon a rotation of said partial surface by 90° or 270°.

43. (new) The method as set forth in claim 25, further comprising using at least one second main number series for position-coding in a second direction.

44. (new) The method as set forth in claim 43, further comprising: forming a two-dimensional array of graphical symbols that each represents one of at least four different values, wherein the value of each symbol is translatable to at least one first number of said at least one first main number series and at least one second number of said at least one second main number series; and applying the two-dimensional array to the surface.

45. (new) A method of determining a position, in a first direction, of an arbitrary partial surface of a predetermined size on a surface which is provided with a position code, which for the position coding in the first direction is based on at least one first main number series, which has the property that the place in the first main number series of each number sequence of a first predetermined length is unambiguously determined and which discriminates the orientation of said position code, but only for

number sequences of a second predetermined length that exceeds the first predetermined length, said method comprising:

identifying at least one number sequence of the second predetermined length from the position code on the partial surface;

identifying a correct orientation of said partial surface based on the thus-identified number sequence of the second predetermined length,

identifying a correctly oriented number sequence of the first predetermined length from the position code on the partial surface; and

determining said position based on said correctly oriented number sequence of the first predetermined length.

46. (new) The method as set forth in claim 45, wherein said identifying of a correct orientation comprises determining the orientation of said partial surface based on the thus-identified number sequence.

47. (new) The method as set forth in claim 45, wherein said identifying of a correct orientation comprises sequentially evaluating the thus-identified number sequence for possible orientations of said partial surface until a correct orientation is determined.

48. (new) The method as set forth in claim 45, wherein said orientation is discriminable from the occurrence of non-allowed number combinations in the thus-identified number sequence.

49. (new) The method as set forth in claim 45, wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed form in the first main number sequence.

50. (new) The method as set forth in claim 45, wherein the first main number sequence is binary, and wherein no number sequence of the second predetermined length in the first main number sequence occurs in a reversed and inverted form in the first main number sequence.

51. (new) The method as set forth in claim 45, wherein the first predetermined length is six numbers, and the second predetermined length is eight numbers.

52. (new) The method as set forth in claim 45, further comprising: identifying a plurality of correctly oriented number sequences of the first predetermined length; determining for each such number sequence a position number that reflects the place of the number sequence in the first main number sequence; determining differences

in position numbers for adjacent number sequences; and determining said position in the first direction based on a predetermined number of said differences.

53. (new) The method as set forth in claim 45, for determining a position in a first and a second direction, wherein the position code for position coding in the second direction is based on at least one second main number series which corresponds to the first main number series with respect to its properties for position determination and orientation discrimination, said method comprising: identifying a correct orientation of said partial surface based on a number sequence of the second predetermined length belonging to at least one of the first and second main number sequences.

54. (new) The method as set forth in claim 53, further comprising: detecting a rotation of the partial surface by 90° based exclusively on a number sequence of the second predetermined length belonging to the first main number series, and detecting a rotation of the partial surface by 270° based exclusively on a number sequence of the second predetermined length belonging to the second main number series.

55. (new) The method as set forth in claim 53, further comprising:

detecting a rotation of the partial surface by 180° based on a number sequence of the second predetermined length belonging to either one of the first and second main number series.

56. (new) The method as set forth in claim 53, further comprising: determining said position in the second direction based on at least one correctly oriented number sequence of the first predetermined length belonging to the second main number series.

57. (new) The method as set forth in claim 53, wherein the first and second directions are mutually orthogonal.

58. (new) The method as set forth in claim 53, wherein the first and second main number series are mutually orthogonal.

59. (new) The method as set forth in claim 53, wherein the first and second main number series are identical.

60. (new) The method as set forth in claim 45, further comprising determining a position in a second direction based on at least one second main number series.

61. (new) The method as set forth in claim 60, further comprising: identifying a plurality of symbols on the partial surface;

determining a value of each of said symbols; translating the value of each symbol into at least one first number and at least one second number; and identifying, based on the first and second numbers, at least one number sequence of the second predetermined length.

62. (new) The method as set forth in claim 61, further comprising: forming first and second sets of said first numbers and second numbers, respectively; identifying at least one number sequence of the second predetermined length in each of the first and second sets; and designating the first and the second position to a position value given by the first and second sets, respectively, whenever the number sequence of the second predetermined length fulfills a predetermined orientation criterion in both the first and the second set.

63. (new) The method as set forth in claim 62, wherein the second predetermined length in the first main number series is identical to the second predetermined length in the second main number series.

64. (new) A computer-readable computer program product which comprises a computer program with instructions to cause the computer to implement the method as set forth in any one of claims 25-63.

65. (new) A device for position determination, comprising a sensor for producing an image of a partial surface of a surface which is provided with a position code, and image processing means which are arranged to calculate based on the subset of the position code which is to be found in the image of the partial surface a position of the partial surface in accordance with the method as set forth in any one of claims 45-63.

66. (new) The device as set forth in claim 65, which is handheld.

67. (new) The device as set forth in claim 65, which has means for wireless transmission of position information.